

Australian Securities Exchange Announcement

30 January 2020

HIGHLIGHTS

- Mineral Resource amendment to include Al_2O_3 and MgO in the resource statement for the Central deposit at Speewah
- The Speewah Specialty Metals (SSM) Project Prefeasibility Study has examined several process routes, and is currently investigating a smaller scale Beneficiation-Agitated Tank Sulphuric Acid leaching-precipitation process. Testwork and studies are underway to produce High Purity Alumina (99.99% Al_2O_3 4N HPA), and Vanadium pentoxide (>98% V_2O_5), Titanium dioxide (>99% TiO_2) and Iron oxide (>65% Fe_2O_3) as co-products, with a completion date by end March 2020.
- ❖ Mt Remarkable drilling returned more gold intersections along the Trudi vein including 6m @ 5.95g/t Au (including 1m @ 33.7g/t Au) and 3m @ 7.1g/t Au (including 1m @ 17.9g/t).
- ❖ Tennant Creek geophysical surveys have delineated IOCG targets for drilling in 2020.

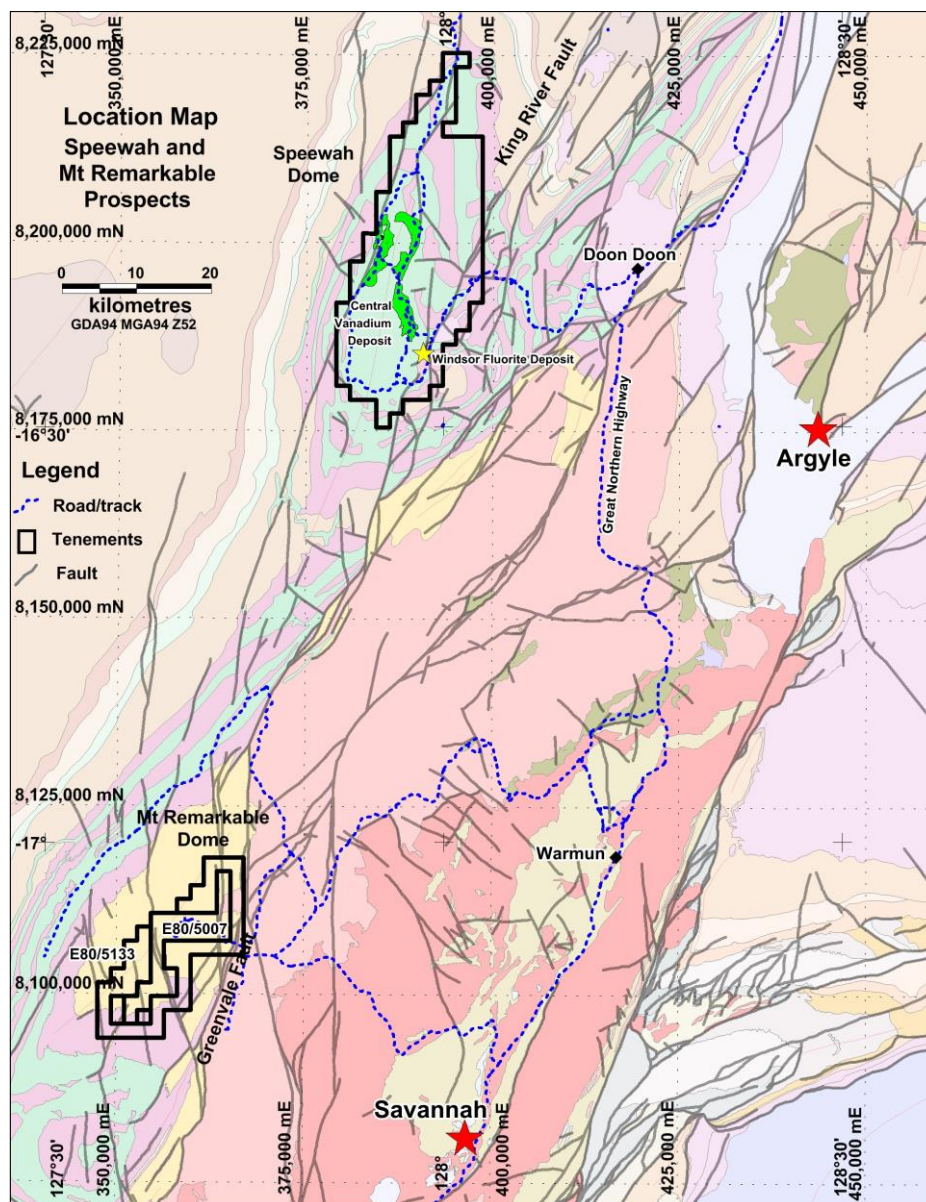


Figure 1: Location of the Speewah and Mt Remarkable projects on a regional geological map

During the December quarter 2019 King River Resources Ltd (ASX:KRR) reported on the Speewah Specialty Metals (SSM) Project and also the high grade Mt Remarkable Gold Project and the Treasure Creek Gold-Copper Project. All these areas are 100% owned by KRR. Speewah and Mt Remarkable are located on the margin of the mineral rich Halls Creek Orogen in the East Kimberley of Western Australia, near the Argyle diamond mine and Savannah nickel mine (Figure 1). Treasure Creek is located in the mineral rich Tennant Creek belt in the Northern Territory.

Mineral Resource Amendment

KRR engaged Mining Industry Consultants CSA Global Pty Ltd (CSA Global), a Member of the ERM Group of Companies, to amend the Mineral Resource estimate for the Central deposit (Figure 2) by including Al₂O₃ (alumina) and MgO (magnesia) in accordance with the JORC Code (2012)¹ (KRR ASX announcement 6 November 2019). The 2017 Mineral Resource estimate and an update in April 2019, reported V, V₂O₅, Fe, and Ti and TiO₂ grades, with V₂O₅ calculated as V multiplied by 1.785 and TiO₂ calculated as Ti multiplied by 1.668. CSA Global notes that Al₂O₃ and MgO (oxides) were reported by the primary laboratory. The amended Mineral Resource table is shown in Table 1.

Table 1: Central Mineral Resource estimate (0.23% V₂O₅ cut-off grade)

Zone	JORC classification	Tonnage (Mt)	V (%)	V ₂ O ₅ (%)	Fe (%)	Ti (%)	TiO ₂	Al ₂ O ₃	MgO
High Grade	Measured	139	0.21	0.37	15.1	2.1	3.5	12.7	4.5
	Indicated	135	0.21	0.37	14.8	2.0	3.4	12.7	4.6
	Inferred	247	0.20	0.36	14.7	2.0	3.4	12.7	4.7
Total High Grade		520	0.20	0.36	14.8	2.0	3.4	12.7	4.6
Low Grade	Measured	91	0.15	0.26	14.6	2.0	3.3	12.6	4.5
	Indicated	167	0.15	0.27	14.8	2.1	3.4	12.4	4.6
	Inferred	462	0.15	0.27	14.3	1.9	3.2	12.4	4.8
Total Low Grade		720	0.15	0.27	14.5	2.0	3.3	12.4	4.7
Combined Zones	Measured	230	0.18	0.33	14.9	2.1	3.4	12.7	4.5
	Indicated	301	0.17	0.31	14.8	2.0	3.4	12.5	4.6
	Inferred	709	0.17	0.30	14.5	2.0	3.3	12.5	4.8
GRAND TOTAL		1,240	0.17	0.31	14.6	2.0	3.3	12.5	4.7

* Due to the effects of rounding, the total may not represent the sum of all components

* V₂O₅ calculated as V x 1.785

* TiO₂ calculated as Ti x 1.668

From Table 1, the Central deposit comprises a Measured, Indicated and Inferred Mineral Resource of 1,240 million tonnes at 0.31 V₂O₅, 3.3% TiO₂, 14.6% Fe, 12.5% Al₂O₃ and 4.7% MgO (reported at a 0.23% V₂O₅ cut-off grade). This combined resource total comprises Measured Mineral Resources of 230 million tonnes at 0.33% V₂O₅, 3.4% TiO₂, 14.9% Fe, 12.7% Al₂O₃ and 4.5% MgO, Indicated Resources of 301 million tonnes at 0.31% V₂O₅, 3.4% TiO₂, 14.8% Fe, 12.5% Al₂O₃ and 4.6% MgO, and Inferred Resources of 709 million tonnes at 0.30% V₂O₅, 3.3% TiO₂, 14.5% Fe, 12.5% Al₂O₃ and 4.8% MgO.

¹ Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC).

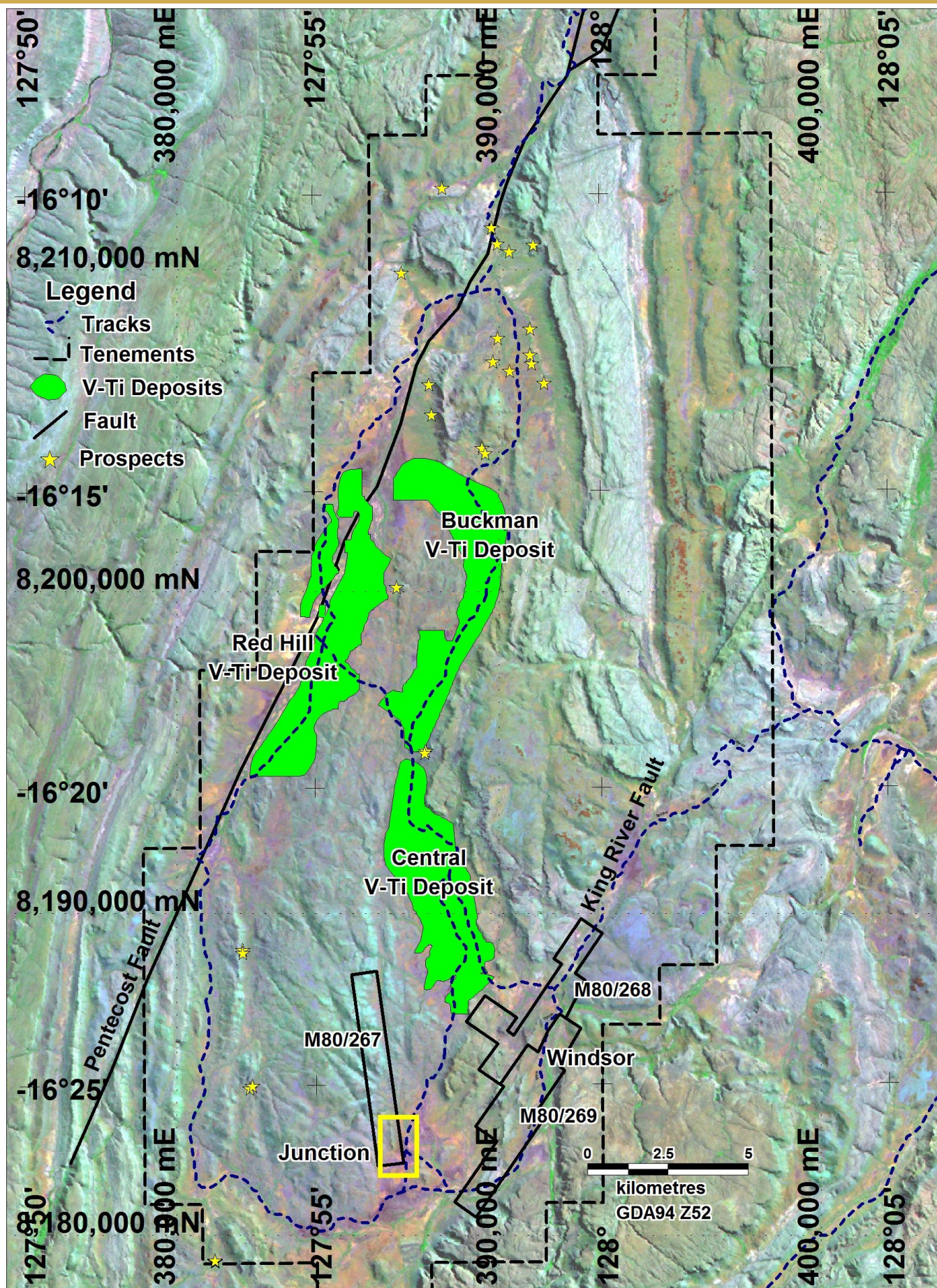


Figure 2: Location of the Central, Buckman and Red Hill vanadium deposits, and the Junction Prospect (yellow box) on Mining Lease M80/267 at Speewah.

Speewah Specialty Metals (SSM) Project

KRR has reported on the Prefeasibility Study (“PFS”) being completed on the company’s 100% owned Speewah Specialty Metals (“SSM”) Project in the East Kimberley of Western Australia. KRR has been examining a new process route to produce high purity alumina (“HPA”), vanadium pentoxide (V_2O_5), titanium dioxide pigment (TiO_2) and iron oxide (Fe_2O_3) products in a smaller scaled operation for the Prefeasibility Study (“PFS”) (refer KRR ASX release 26 November 2019). Major PFS developments during the December Quarter include:

❖ New HPA process

- KRR made a breakthrough by extracting aluminium (Al) directly from the V, Ti, Fe, Al and Mg rich sulphuric acid leach solution as the first precipitation product (KRR ASX release 26 November 2019). This process development resulted from investigations into removing iron from the leach solution to facilitate the solvent extraction of vanadium (V) and titanium (Ti). KRR is now able to remove ~95% of the Al as an intermediate compound and in a second step ~50% of the Fe and ~58% of the magnesium (Mg) in a simple process that has the potential to be relatively low cost using readily available reagents and operates at leach temperature and atmospheric pressure.



- Purification of the intermediate Al rich product has produced a 99.98% Al_2O_3 (3N8) HPA on calcination and washing (calculated on an oxide basis, where impurities are converted to oxides then subtracted from 100%). Optimisation testwork to improve HPA purity and efficiency is underway (KRR ASX announcement 5 December 2019).

❖ Market study

KRR commissioned a detailed marketing study from CRU International, a highly respected global authority. The study examined the prices and demand for the four commodities targeted by the PFS. For HPA, over-the-counter transactions of 4N HPA (99.99% Al_2O_3) currently attract a price of ~US\$24,000/tonne. The demand and prices for 4N HPA are expected to improve in coming years as a result of increased demand from two important high technology markets where it is the precursor material for the manufacture of synthetic sapphire glass (used as substrates in light-emitting diode (LED) lights, semiconductors and laser markets) and HPA coated separators (used in the manufacture of lithium batteries). The unique physical and chemical properties of HPA make it ideal for use in these and other growing high technology industries.

❖ **Study developments**

- The new high purity alumina process development has the potential to provide a positive impact on the economics of the SSM project and warranted a redesign of the process flow sheet to be incorporated into the PFS.
- Opportunities remain to optimise the process and the PFS, including (i) process flowsheet refinements, (ii) minimising waste streams by maximising by-products, (iii) site selection, (iv) start-up scale and scalability options, and (v) the co-production of various V_2O_5 , TiO_2 and Fe_2O_3 products in response to changing market conditions. Optimisation testwork work and trade-off studies are well underway and the PFS is now expected to be completed late in the March 2020 quarter.
- Testwork also examined extracting Alumina from the waste non-magnetic fraction generated at the concentrate stage of the process. The grade of Al in the ROM material is 12.7% Al_2O_3 , the magnetic concentrates typically grade ~7% Al_2O_3 , and the non-magnetic waste fraction (70% of the mined volumes) grades 15-16% Al_2O_3 . The waste fraction is expected to be largely devoid of the Iron, Titanium and Vanadium that are acid consuming in the leaching process.
- Removing ~50% of the iron early in the refining flow sheet design is expected to facilitate the solvent extraction of vanadium (V) and titanium (Ti).
- These process modifications may provide the added advantage for a smaller scale start-up SMM project and its future scalability of V, Ti and Fe production in proportion to prices and demand.
- The drilling of the Junction vanadium deposit on the granted Mining Lease M80/267 (Figure 2) provides further optionality for the development and timing of the SSM project.

Mt Remarkable Gold Project

During the quarter, KRR completed a RC drill programme at its high grade gold project, Mount Remarkable (Figure 1). A total of 39 RC holes were drilled for 2,677m (KRR ASX announcements 17 October 2019, 7 November 2019 and 27 November 2019). Previous drilling at this gold project had returned multiple high grade gold results, including the best result of 4m @ 113.29g/t Au including 1m @ 346g/t Au, obtained in 2018 (KRR ASX announcement 4 June 2018).

Drilling during the quarter targeted the high grade Trudi vein as well as veins identified during this year's reconnaissance exploration earlier in the year. This included drilling in the following areas:

- Extensions to the two new high-grade gold zones discovered at the east end of Trudi grid drilling in 2018 (including 4m @ 19.88g/t Au including 1m @ 69.3g/t Au (KRR ASX announcement 7 January 2019).
- The east strike extensions of the Trudi vein up to 700m beyond the 5m grid drilling (Figure 3) where 3 possible positions for the vein have been interpreted to extend under a hill consisting of rocks now interpreted to be a cover unit.
- Depth extensions to Trudi high grade mineralisation (Figure 3).
- The newly discovered gold mineralized veins outside of the main project area (KRR ASX announcement 7 January 2019) – Figure 5.

In addition, reconnaissance exploration, surface rock sampling and a ground magnetic survey (designed to test for veins beneath the interpreted cover units) were undertaken during the drilling programme.

Trudi Vein

Seventeen holes for 1,368m were completed targeting the Trudi Main Grid area and Trudi East extensions. Results for seven holes have been returned from the Trudi drilling and show that the eastern most high-grade zone (discovered last year) continues east returning best results of 6m @ 5.95g/t Au from 20m including 1m @ 33.7g/t Au and 3m @ 7.1g/t Au from 26m including 1m @ 17.9g/t Au associated with quartz-adularia veining at the eastern most edge of the 5m grid drilling (Figure 3).

By the end of the quarter, assay results were still pending for 10 more holes at Trudi:

- Four holes drilled another 20m to the east of the results highlighted above intersected similar strong structure and quartz adularia veining.
- Step-out drilling approximately 30m further east again intersected strong quartz adularia veining up plunge of a deeper previous intersection of 1m at 5.76g/t Au (KRR ASX announcement 12 October 2018, Figure 3).
- Drilling beneath the eastern most high-grade zone, where mineralisation is still open at depth. One hole has been drilled beneath 2018 holes which intersected broad strong structure.
- Extension exploration holes at Trudi East, where drilling is testing whether gold occurs in a near horizontal shoot below the contact with an overlying felsic rock unit. Similar controls are seen in the Pajingo gold deposits in Queensland and other epithermal gold systems where mineralization has formed along a shallow dipping trend but still reaching depths of over 500m. A significant zone of structure and quartz adularia veining (10m of broad structure with 5m of strong quartz-adularia veining) has been intersected 150m east of the Trudi grid drilling with assays pending.

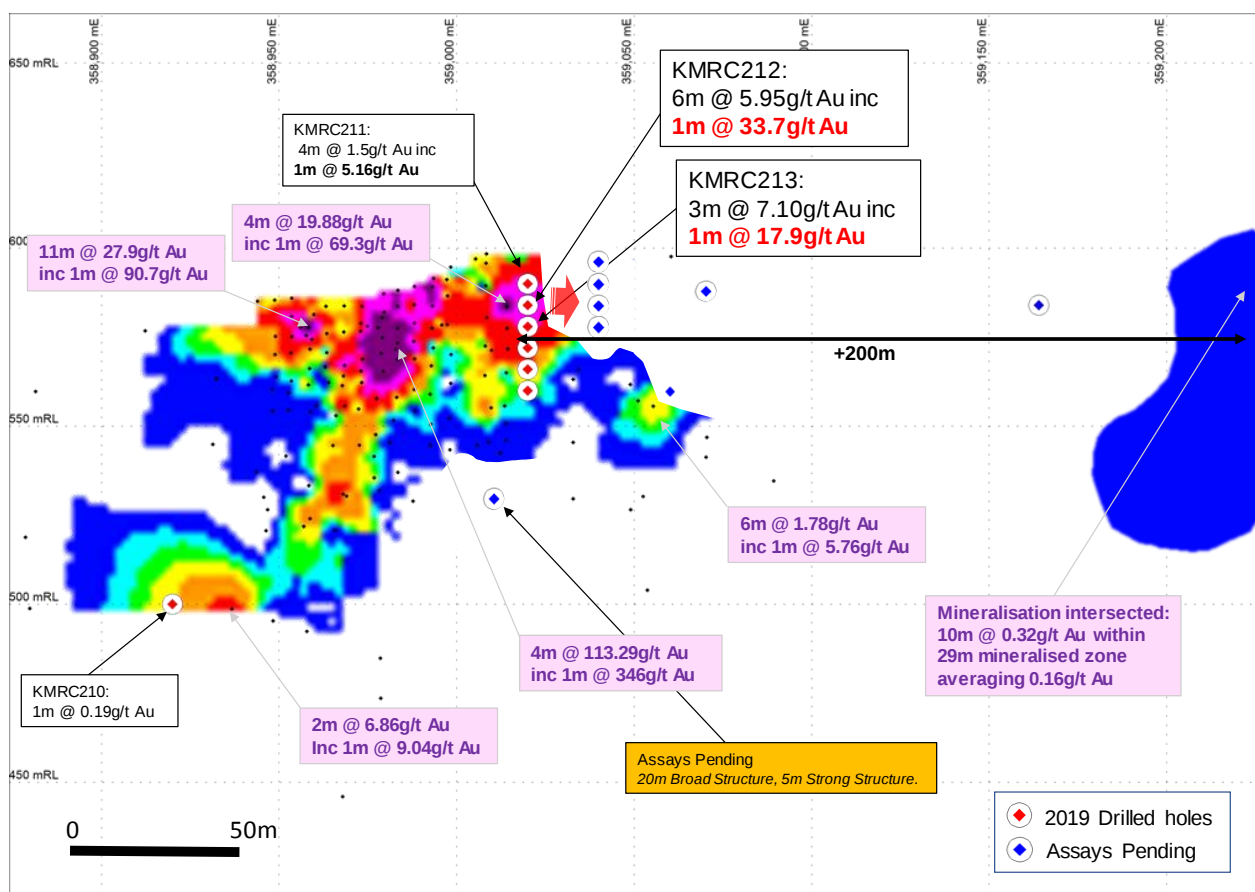


Figure 3: Long projection, looking north, showing multiple very high-grade gold zones within the Trudi Main Grid Area. Latest drilling with results shown as red dots, assays pending as blue dots.

Reconnaissance Veins

Twenty-two RC holes for 1,309m were drilled targeting newly discovered, anomalously mineralised veins (identified during earlier 2019 reconnaissance work), including the Jeniffer, Central Dome and Camp North areas (Figure 4) with significant structure and quartz adularia veining intersected at all 3 locations (Figure 5).

Weakly anomalous gold was intersected in 2 of the 3 holes at Jeniffer and assays are pending for the other 19 holes.

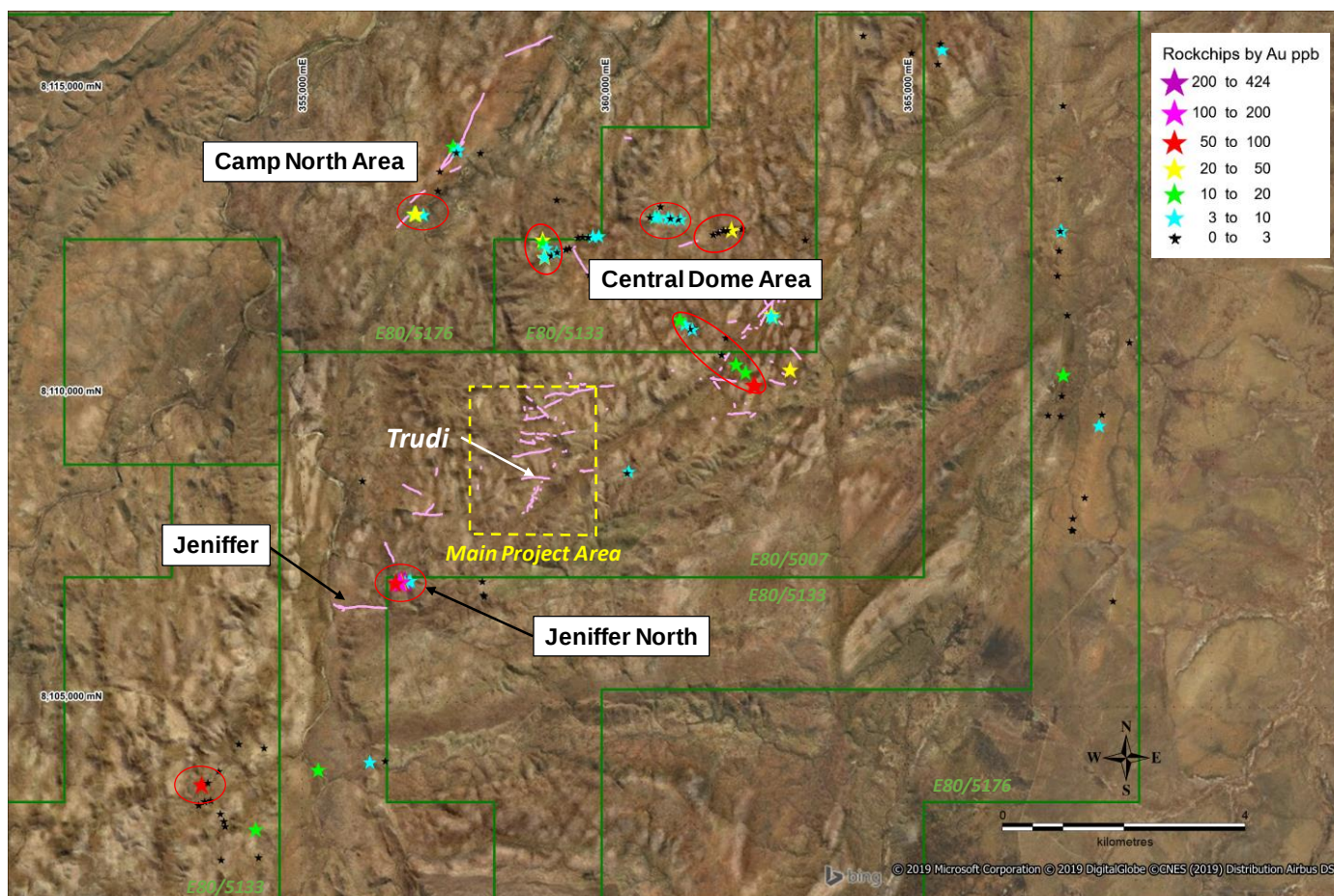


Figure 4: Location of newly discovered mineralised veins (red ovals) outside the main project area where RC drilling is now completed.



Figure 5 Quartz Adularia Veining from RC drilling at the Central Dome area (KMRC227: 26-30m)

Tennant Creek: Treasure Creek Project:

Geophysical surveys and reconnaissance were undertaken at two priority Treasure Creek tenements (EL31617 and EL31619). EL31617 covers the under-explored eastern extension of the Rover Gold Field that hosts numerous ironstone bodies with characteristic copper-gold +/- cobalt, silver and bismuth mineralisation. EL31619 covers the under-explored eastern extension of the Tennant Creek Mineral Field and includes part of the Lone Star iron oxide copper gold (IOCG) trend which includes Emmerson Resources Mauretania deposit only 700m from the western boundary of the tenement.

Typical Tennant Creek orebodies are IOCG gold deposits characterized by magnetite and hematite iron oxide bodies mineralized with copper, bismuth, silver and gold sometimes returning bonanza style gold intersections. The ironstone bodies can typically be discovered with geophysics as they cause coincident magnetic and gravity highs (magnetite iron oxides) or just gravity highs (hematite iron oxides).

The first phase of ground magnetics has been completed at the Lonestar Trend prospect area on EL31617 with preliminary results clearly defining the main magnetic high as well as other significant trends/anomalies. The main anomaly is only 3.3km from Emmerson's Mauritania prospect where 20m @ 38.5g/t Au was returned in a diamond drill hole this year (Emmerson Resources ASX announcement 4 July 2019). Figure 7 shows a preliminary magnetic image of the survey (further processing is required by geophysical consulting company Resource Potentials) and the areas yet to be surveyed this year. Gravity surveys have also been completed during November by Atlas Geophysics at the Lone Star Trend prospect area and at the Commitment Prospect (another significant magnetic high) 16km to the east of the Lone Star Trend prospect area (Figure 5). Gravity results and images are pending.

KRR is engaging in a detailed geological and geophysical review of all its Treasure Creek tenements and has already identified multiple iron oxide copper-gold targets within the granted licences (Figure 6 shows preliminary 3D images of magnetic/gravity inversion modelling for priority targets showing RC drillable depths).

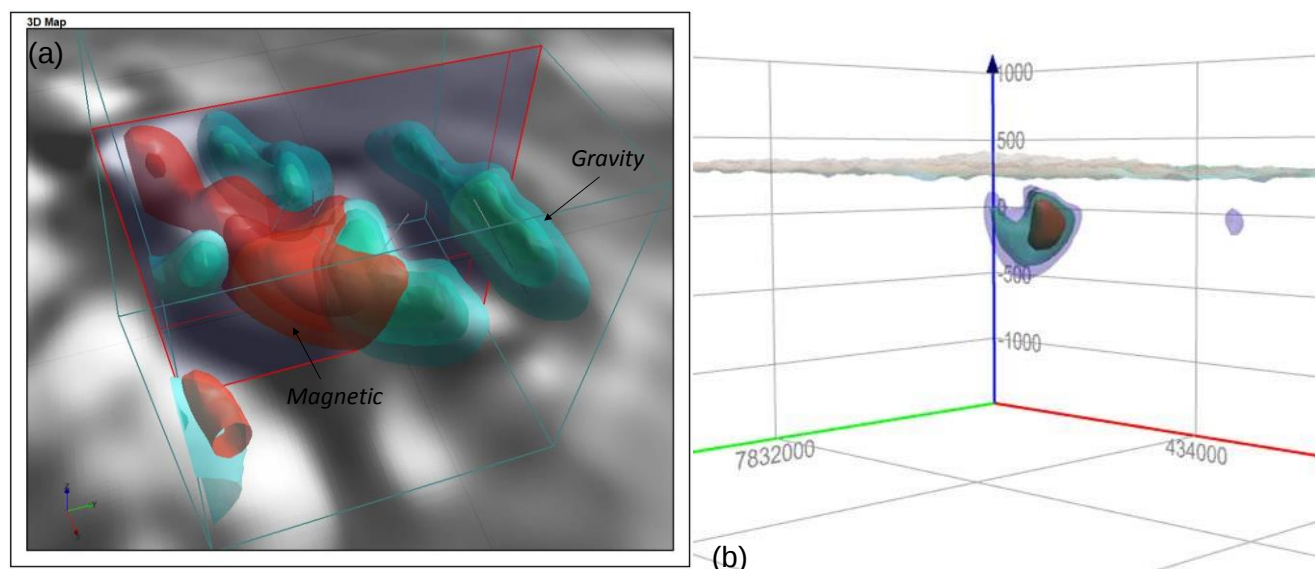


Figure 6 Preliminary Inversion Modelling of IOCG priority Targets on (a): EL31617 magnetic and gravity models and (b):EL31619 east target magnetic model.

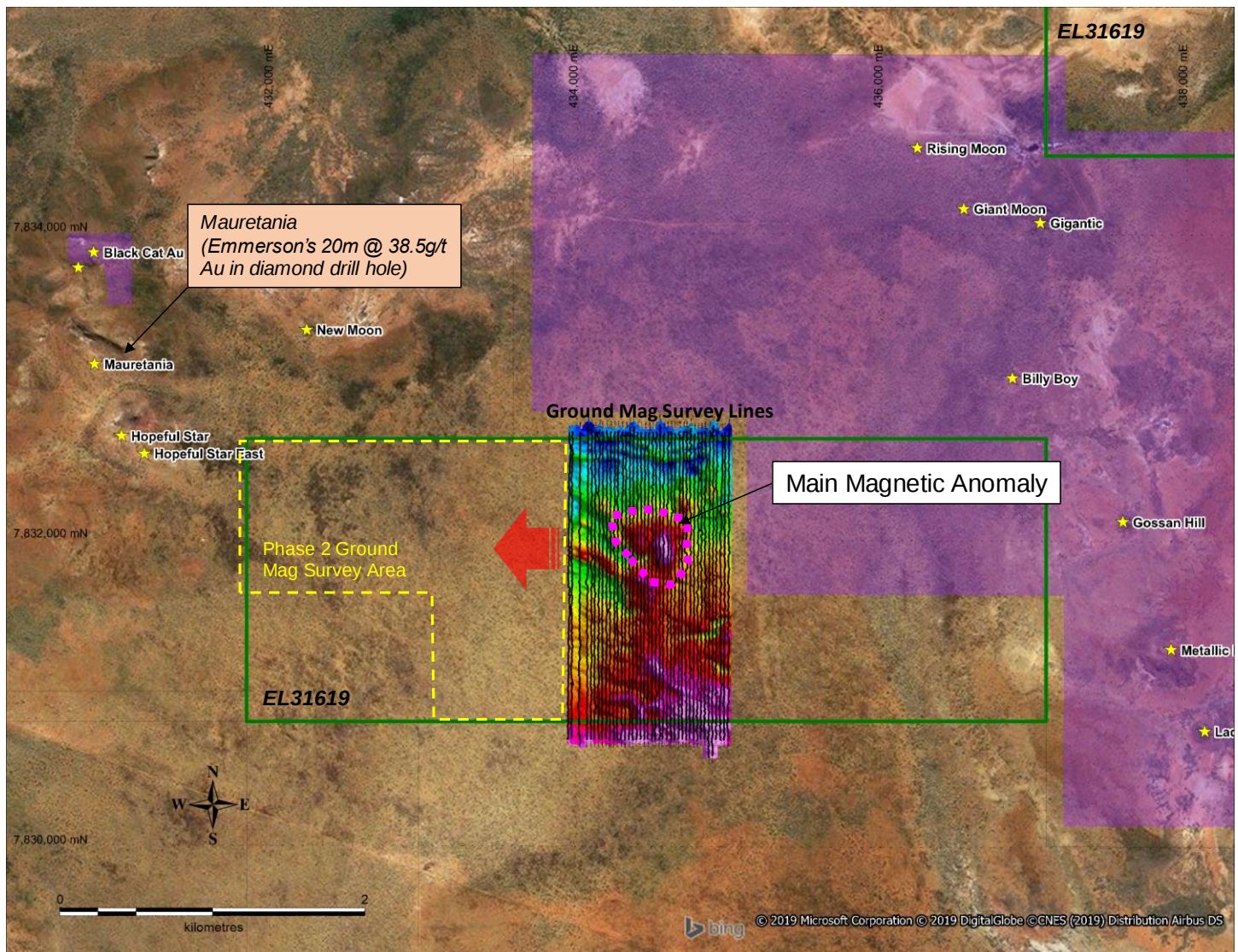


Figure 7: Preliminary ground magnetics image (to be processed) showing nearby prospects on Emmerson Resources tenements, target high magnetic anomaly and area still to be surveyed.

Drilling of the main EL31617 and EL31619 geophysical targets is planned for 2020. Environmental approvals for the planned drilling are currently being reviewed by the NT Mines Department.

Two new Exploration Licences (EL32344 and EL32345 Table 1) were applied for in the southern part of the tenement package. These two applications cover an area of 1,172 square kilometres.

Statement by Competent Person

The information in this report that relates to Exploration Results, Mineral Resources, Metallurgy and Previous Studies is based on information compiled by Ken Rogers (BSc Hons) and fairly represents this information. Mr. Rogers is the Chief Geologist and an employee of King River Resources Ltd, and a Member of both the Australian Institute of Geoscientists (AIG) and The Institute of Materials Minerals and Mining (IMMM), and a Chartered Engineer of the IMMM. Mr. Rogers has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Rogers consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

This announcement was authorised by the Chairman of the Company.

Anthony Barton

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TABLE 1: SCHEDULE OF TENEMENTS HELD AT 31 DECEMBER 2019
SPEEWAH MINING PTY LTD and WHITEWATER MINERALS PTY LTD
(wholly-owned subsidiaries of King River Resources Limited)

Tenement	Project	Ownership	Change During Quarter
E80/2863	Speewah (held by Speewah Mining Pty Ltd)	100%	
E80/3657		100%	
E80/4468		100%	
E80/4741		100%	
E80/4831		100%	
E80/4961		100%	
E80/4962		100%	
E80/4972		100%	
E80/4973		100%	
L80/43		100%	
L80/47		100%	
M80/267		100%	
M80/268		100%	
M80/269		100%	
E80/5007	Mt Remarkable (held by Whitewater Minerals Pty Ltd)	100%	
E80/5133		100%	
E80/5176		100%	
E80/5177		100%	
E80/5178		100%	
ELA80/5192		100%	
ELA80/5193		100%	
E80/5194		100%	
E80/5195		100%	
E80/5196		100%	

Note:

E = Exploration Licence (granted) ELA = Exploration Licence (application)

M = Mining Lease (granted) L = Miscellaneous Licence (granted)

TREASURE CREEK PTY LTD
(wholly-owned subsidiary of King River Resources Limited)

Tenement	Project	Ownership	Change During Quarter
EL31617	Tennant Creek	100%	
EL31618		100%	
EL31619		100%	
EL31623		100%	
EL31624		100%	
EL31625		100%	
EL31626		100%	
EL31627		100%	
EL31628		100%	
EL31629		100%	
EL31633		100%	
EL31634		100%	
ELA32199		100%	
ELA32200		100%	
ELA32344		100%	Applied for 10 December 2019
ELA32345		100%	Applied for 10 December 2019

Note:

EL = Exploration Licence (granted)

ELA = Exploration Licence (application)